Comments on Working Draft Cap-and-Trade HIA Framework (January 27th, 2010)

The analysis appears to have identified the most salient policy levers, reasonable baseline assumptions, and reasonable alternative scenarios for illustrated potential health impacts of Cap-and-trade policy development

The general categories of affected health determinants nder the scope appear complete but the health impacts and relationship to cap and trade policy should be expanded to illustrate effects associated with all categories and to justify priority determinants

In my opinion, the most important health determinants affected by Cap-and-trade policy, excluding GHG emissions, appear to include:

- Household and transportation energy consumption
- Employment –employment effects are likely to be observed in regulated industrial sectors, non-regulated sectors that generate offsets, and sectors that serve regulatory compliance needs. Note that effects on regulated industrial sectors may be mixed— job loss from downsizing operations and job growth from changes in infrastructure and operations.
- Air pollutant exposure
- Ecological effects (e.g. green space) assuming these are preferred offsets
- Transportation and land use patterns

It is important to note that studying impacts may be important even if effects are ultimately found to be negligible. Demonstrating the lack of impact on an important category of health determinant is a useful output of HIA.

 More information is needed to determine whether there will be substantial effects on land use. Will GHG regulations change where regulated GHG industries locate, or the spatial clustering of GHG emitting industries? Will impacts on transportation fuels affect development preferences substantially?

The general approach to analysis of policy parameters and health effects makes sense given the complexity of the policy. I interpret the approach to be scenario development for a select group of health effects pathways under base line and alternative conditions with best available evidence and necessary assumption.

I suggest the primary analytic focus should be at the level of health determinants particularly given the uncertainty about policy outcomes on the determinants. Empirical relationships among determinants and health outcomes could be included in a descriptive way.

Quantification, whether for social or environmental determinants or health outcomes, should occur only where there is an adequately demonstrated causal relationship, reliable data on changes in "exposure" and a valid dose-response relationship. I suggest limiting quantification of health outcomes to only limited number of sensitive, specific, and direct health outcomes for each determinant. I also think it is important to achieve a relatively equal level of detail for analysis among priority determinants.

I would avoid analysis on impacts that may appear speculative or unrelated because of long causal chains or the lack of a specific policy to determinant relationship (physical activity, child development, obesity)

While analysis of air pollutant effects or benefits of offsets might be best conducted or illustrated at a community or local scale; analysis of consumer and employment effects is probably best conducted at the State scale.

Consider low-income and ethnic minorities as a vulnerable population at for both regional-level and state level analysis. Indicators data should be disaggregated based on vulnerability factors.

Data sources appear to be primarily those useful for Additional data sources for this HIA might also include:
- Price elasticity of consumption (home energy, transportation fuels)
- Dose-response functions and other methods already in various regulatory impact analyses
- EPA methods for economic valuation of health effects
- Existing peer-reviewed evaluations and systematic evidence reviews (e.g. Campbell Collaboration) to evaluate public health benefits of proposed revenue allocation strategies. For example, the health benefits of modest income supports for low income populations were evaluated in the context of 1996 TANF legislation.

Important sources of data for this assessment should be other research completed or currently in progress on Cap and Trade policy (e.g. economic effects). It would be efficient to link outputs specifying effects on health determinants (e.g. employment) from other analysis to health effects.

The approach, while sensible, will provide a large amount of information and alternative policy choices cannot be evaluated against any single health metric. Given the approach and multiple determinants and the high likelihood of mixed effects it necessary to productively synthesize the findings in a way that answers the primary HIA question / objective—what is the configuration of policy parameters optimal for public health?   My suggestion is that this question be answered through a facilitated, deliberative process based on the primary analysis proposed.   Models of deliberative assessment include the recent CARB consensus process on PM 2.5 Chronic Mortality, the National Institute of Health consensus conference approach, and the Danish Institute of Technologies consensus process approach.